Response to Office Action Dated December 14, 2005

Amendment Dated July 24, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A processor executing a plurality of instructions, comprising:

an arithmetic logic unit; and

a plurality of registers coupled to the ALU, each register programmable to store a

register value;

wherein said processor executes a test and skip instruction when called within the

plurality of instructions that includes a first register reference and a second

register reference and causes the processor to compare the registera first

value comprising the register value stored in a register corresponding to the

first register reference and a second value associated with the second

register reference and to execute or not execute a subsequent instruction

that follows the test and skip instruction based on the comparison.

2. (Original) The processor of claim 1 wherein the second value comprises a register

value stored in the second register reference.

3. (Original) The processor of claim 1 wherein the processor is configured to access

memory and the second value is stored in the memory.

Response to Office Action Dated December 14, 2005

Amendment Dated July 24, 2006

4. (Original) The processor of claim 3 wherein the second register reference contains a

value used to compute a pointer to a memory location containing the second value.

5. (Original) The processor of claim 4 wherein the pointer is computed by adding the

value from the second register reference to a register value from another register.

6. (Currently Amended) The processor of claim 5 wherein the value held in the another

register is post-incremented by a predetermined value following execution of the test and

skip instruction.

7. (Original) The processor of claim 1 wherein the comparison includes a condition that is

specified in the test and skip instruction.

8. (Original) The processor of claim 7 wherein any one of a plurality of conditions are

specified in the test and skip instruction.

9. (Currently Amended) The processor of claim 7 wherein the condition is a condition

selected from the group consisting of equal to, not equal to, less than, and greater than.

10. (Currently Amended) A method of executing a test and skip instruction, comprising:

calling the test and skip instruction within a sequence of instructions;

examining a bit in the test and skip instruction;

178964.01/1962.05407 Page 10 of 21

Response to Office Action Dated December 14, 2005

Amendment Dated July 24, 2006

determining an address mode based on said bit;

comparing contents of a first register to contents of a second register if the bit is in a first state; or

comparing the contents of the first register to contents of a non-register location if the bit is in a second state; and

skipping a subsequent instruction based on results of the comparison.

- 11. (Original) The method of claim 10 wherein skipping the subsequent instruction comprises replacing the subsequent instruction with a no operation instruction.
- 12. (Original) The method of claim 10 wherein the non-register location is a location selected from the group consisting of memory and a stack.
- 13. (Currently Amended) A system, comprising:

a main processor unit; and

a co-processor coupled to said main processor unit, wherein said co-processor executes a test and skip instruction when called within a sequence of instructions that includes a first register reference and a second register reference and causes the processor to compare the a first value comprising a register value stored in a register corresponding to the first register reference and a second value associated with the second register reference

Response to Office Action Dated December 14, 2005

Amendment Dated July 24, 2006

and to execute or not execute a subsequent instruction that follows the test

and skip instruction based on the comparison.

14. (Original) The system of claim 13 wherein the second value comprises a register

value stored in the second register reference.

15. (Original) The system of claim 13 wherein the processor is configured to access

memory and the second value is stored in the memory.

16. (Original) The system of claim 15 wherein the second register reference contains a

value used to compute a pointer to a memory location containing the second value.

17. (Original) The system of claim 16 wherein the pointer is computed by adding the

value from the second register reference to a register value from another register.

18. (Original) The system of claim 13 wherein the comparison includes a condition that is

specified in the test and skip instruction.

19. (Original) The system of claim 18 wherein any one of a plurality of conditions are

specified in the test and skip instruction.

Response to Office Action Dated December 14, 2005

Amendment Dated July 24, 2006

20. (Currently Amended) The system of claim 18 wherein the condition is a condition

selected from the group consisting of equal to, not equal to, less than, and greater than.

21. (Original) The system of claim 13 wherein the system comprises a communication

device.

22. (Currently Amended) A programmable logic device comprising;

control logic; and

a means for executing a test and skip instruction when called within a sequence of

instructions that includes a first register reference identifying a first register

having a register value and a second register reference identifying a second

register also having a register value, for comparing a first value comprising

the register value stored in the first register and a second value associated

with the second register, and for executing or not executing a subsequent

instruction that follows the test and skip instruction based on the

comparison.

23. (Currently Amended) The system-programmable logic device of claim 22 wherein said

second value is stored in a register.

24. (Currently Amended) The system programmable logic device of claim 22 wherein said

second value is stored in memory.

Page 13 of 21

178964.01/1962.05407

Response to Office Action Dated December 14, 2005

Amendment Dated July 24, 2006

25. (Currently Amended) The system-programmable logic device of claim 22 wherein said second value is stored in a stack.

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